

AMENDMENTS TO THE CLAIMS

Listing of Claims:

Claims 1 – 10 (cancelled)

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Claim 11 (currently amended): An optical disc system for recording data to an optical disc,
the optical disc system comprising:

an optical pickup unit for accessing data on the disc and producing a wobble
signal;

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a spindle motor for rotating the disc according to a control signal;

a circuit for generating the control signal according to a rotation speed of
the spindle motor, the circuit being not coupled to the wobble signal;

a phase locked loop (PLL) for extracting a carrier frequency of the wobble
signal;

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a clock synthesizer for producing a channel clock corresponding to a linear
velocity, according to the wobble signal carrier frequency;

an encoding unit for encoding incoming data utilizing the channel clock,
and then for producing a corresponding data signal for driving the
optical pickup unit to record data to the optical disc;

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whereby data recording does not need to be synchronized with the spindle
motor operation.

Claim 12 (previously presented): The optical disc system of claim 11, further comprising
a preamplifier connected between the optical pickup unit and the PLL for
25 amplifying the wobble signal output by the optical pickup unit.

Claim 13 (previously presented): The optical disc system of claim 11, wherein the

encoding unit further comprises:

a data encoder, for encoding data according to the channel clock;

a firmware, for transforming the encoded data into a pulse train; and

a laser driver, for controlling the optical pickup unit for recording to the
optical disc.

Claim 14 (previously presented): The optical disc system of claim 11 wherein the optical pickup unit is a laser pickup.

Claim 15 (previously presented): The optical disc system of claim 11 being an optical disc recorder.

Claim 16 (previously presented): The optical disc system of claim 11, wherein the spindle motor rotates the optical disc at constant angular velocity.

Claim 17 (currently amended): A method for recording data to an optical disc, the method comprising:

providing an optical pickup unit for accessing a wobble signal from the optical disc;

providing a spindle motor for rotating the optical disc according to a control signal;

generating the control signal according to a rotation speed of the spindle motor and not according to the wobble signal;

extracting a carrier frequency of the wobble signal;

utilizing the wobble signal carrier frequency to generate a channel clock corresponding to a linear velocity;

encoding incoming data utilizing the channel clock, and then producing a corresponding data signal for driving the optical pickup unit to record

data to the optical disc;
whereby data recording does not need to be synchronized with the spindle
motor operation.

- 5 Claim 18 (previously presented): The method of claim 17, wherein the step of accessing
the wobble signal from the optical disc further comprises amplifying the
wobble signal.

- 10 Claim 19 (previously presented): The method of claim 17 wherein the optical disc system
is an optical disc recorder.

- Claim 20 (previously presented): The method of claim 17, wherein the step of rotating the
optical disc rotates the optical disc at constant angular velocity.